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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,876	12/10/2003	Jacky Shen	MS1-1806US	8084
22801	7590	03/09/2005	EXAMINER	
LEE & HAYES PLLC 421 W RIVERSIDE AVENUE SUITE 500 SPOKANE, WA 99201			LE, VU	
			ART UNIT	PAPER NUMBER
			2613	
DATE MAILED: 03/09/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/733,876

Applicant(s)

SHEN ET AL.

Examiner

Vu Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-28, 30-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Tahara, US 5,412,428.

Re claim 1, Tahara discloses a method (figs. 6 & 10, "Summary of the Invention") comprising: receiving a video information stream including color information formatted according to a first color space sampling format a pre-determined number of bits (fig. 6:302, fig. 9A, col. 7, lines 8-55, the predetermined number of bits is dictated by the 4:4:4 sampling); splitting the color information into a base information stream formatted according to a second color space sampling format having less than the pre-determined number of bits (fig. 9B i.e., the 4:2:2 sampling will have less number of bits than the 4:4:4 sampling and will serve as the base information stream, fig. 10 shows this base information stream being the input to circuit 101 of the encoder 303) and into an enhanced information stream (fig. 9C, the 4:2:0 sampling will serve as the enhanced information stream, fig. 10 shows this enhancement information stream being the input to circuit 100 of the encoder 303); and providing an indicator with at least one of the base information stream and the enhanced information stream that indicates a

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capability for providing video information according to the first color space sampling format or the second color space sampling format (col. 18, line 58 – col. 19, line 24, col. 22, lines 24-44, i.e. the composer 105 composes the luminance and chrominance data groups with respective header indicators to enable selectivity of different color space sampling format at the select circuit, fig. 17: 164).

Re claim 2, the method of claim 1, further comprising encoding the enhanced information stream using spatial information related to the base information stream. (As discussed in claim 1 above, the enhanced information stream i.e. 4:2:0 sampling (fig. 9C) is derived from the base information stream i.e. 4:2:2 sampling (fig. 9B), and is being encoded w/r to the base information stream (see fig. 10)).

Re claim 3, the method of claim 1, further comprising selectively encoding the enhanced information stream using spatial information related to the base information stream or using a previous reference related to the enhanced information stream. (See fig. 11, selective encoding is dictated by mode selection 54).

Re claim 4, the method of claim 1 further comprising encoding the base information stream into a base encoded bit stream, encoding the enhanced information stream into an enhanced encoded bit stream, and combining the base encoded bit stream and the enhanced encoded bit stream into an output bit stream. (See fig. 10, base information stream is outputted from 115 and enhanced information stream is outputted from 58, both are combined by composer 105).

Re claim 5, the method of claim 4, wherein the output bit stream comprises an interleaved stream of the enhanced encoded bit stream and the base encoded bit stream. (See col. 19, lines 18-20, interleaving is disclosed here).

Re claim 6, the method of claim 4, wherein the output bit stream comprises a concatenated stream of the enhanced encoded bit stream and the base encoded bit stream. (See col. 19, lines 1-15, concatenated stream is disclosed here).

Re claim 7, the method of claim 6, wherein the enhanced encoded bit stream follows the base encoded bit stream. (See figs. 9A-9C, col. 7, lines 25-31. The encoded bit stream is formatted to have a hierarchical order of resolutions from highest to lowest).

Re claim 8, the method of claim 4, wherein the output bit stream comprises a first file for the enhanced encoded bit stream and a second file for the base encoded bit stream. (See col. 19, lines 1-11, the files are represented by the headers of respective data).

Re claim 9, the method of claim 1, wherein the color information includes chrominance blocks. (See figs. 9A-9C).

Re claim 10, the method of claim 1, wherein the first color space sampling format comprises a YUV422 format and the second color space sampling format comprises a YUV420 format. (See figs. 9B & 9C. Note: C_b is U and C_r is V).

Claims 11-18 have been analyzed and rejected w/r to claims 1-10 above. In Tahara, the encoding method is microprocessor-based. Hence, having a computer-readable medium having computer-executable instructions are inherent and expected.

Claims 19-25 have been analyzed and rejected w/r to claims 1-10 above. In Tahara, the encoding system is illustrated in figures 6 and 10, and serves to encode HDTV signals. HDTV signals inherently come from digital video camera.

Claims 26-28 pertain to a decoder corresponding to the inverse operation of the encoder of claims 19-25. Tahara discloses the corresponding decoder in figures 17-18.

Claims 30-34 have been analyzed and rejected w/r to claims 1-10 and 11-18 above. In Tahara, the encoding system is illustrated in figures 6 and 10, and it is programmable. It is expected and inherent that the input signal comes from a digital image sensor such as CCD.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.


4. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tahara. Tahara discloses the encoded video bit streams may be transmitted through broadcast radio wave, ISDN, or the like. A set-top box to serve as a device for decoding encoded bit streams is not specifically disclosed in Tahara. Official Notice is taken to note that a set-top box is notoriously well known and used in the art as a digital TV signal decoder, especially for broadcast radio wave digital TV signal. Therefore, it would have been obvious to incorporate a set-top box into Tahara as an alternative decoding device to decode broadcast digital TV signals.

Contact

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vu Le whose telephone number is (571) 272-7332. The examiner can normally be reached on M-F 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. Customer Service can be reached at (571) 272-2600. The fax number for the organization where this application or proceeding is assigned is (571) 273-7332.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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